

# PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY

# PCT

To: ERIC POTTER CLARKSON Attn. Gareth D. Probert Park View House 58 The Ropewalk Nottingham NG1 5LD UNITED KINGDOM	
<div style="border: 1px solid black; padding: 2px; margin: 5px auto; width: 80%;"> <div style="display: flex; justify-content: space-between; border-bottom: 1px solid black; margin-bottom: 5px;"> <span>RECORDS</span> <span>CHECKED</span> </div> <div style="text-align: center; font-weight: bold; font-size: 1.2em;">                         - 4 AUG 2005                     </div> <div style="display: flex; justify-content: space-between; border-top: 1px solid black; margin-top: 5px;"> <span>PARTIAL</span> <span>ACTION</span> </div> </div>	Date of mailing (day/month/year)

NOTIFICATION OF TRANSMITTAL OF  
THE INTERNATIONAL SEARCH REPORT AND  
THE WRITTEN OPINION OF THE INTERNATIONAL  
SEARCHING AUTHORITY, OR THE DECLARATION

(PCT Rule 44.1)

Applicant's or agent's file reference 210511PCT	Date of mailing (day/month/year) <b>02/08/2005</b>
International application No. PCT/US2005/000278	International filing date (day/month/year) <b>06/01/2005</b>
Applicant CHEVRON PHILLIPS CHEMICAL COMPANY, LP	

1. ☒ The applicant is hereby notified that the international search report and the written opinion of the International Searching Authority have been established and are transmitted herewith.

**Filing of amendments and statement under Article 19:**

The applicant is entitled, if he so wishes, to amend the claims of the International Application (see Rule 46):

**When?** The time limit for filing such amendments is normally 2 months from the date of transmittal of the International Search Report; however, for more details, see the notes on the accompanying sheet.

**Where?** Directly to the International Bureau of WIPO, 34 chemin des Colombettes  
1211 Geneva 20, Switzerland, Facsimile No.: (41-22) 740.14.35

**For more detailed instructions,** see the notes on the accompanying sheet.

2. ☐ The applicant is hereby notified that no international search report will be established and that the declaration under Article 17(2)(a) to that effect and the written opinion of the International Searching Authority are transmitted herewith.
3. ☐ **With regard to the protest** against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:
- ☐ the protest together with the decision thereon has been transmitted to the International Bureau together with the applicant's request to forward the texts of both the protest and the decision thereon to the designated Offices.  
☐ no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

**4. Reminders**

Shortly after the expiration of **18 months** from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau as provided in Rules 90bis.1 and 90bis.3, respectively, before the completion of the technical preparations for international publication.

The applicant may submit comments on an informal basis on the written opinion of the International Searching Authority to the International Bureau. The International Bureau will send a copy of such comments to all designated Offices unless an international preliminary examination report has been or is to be established. These comments would also be made available to the public but not before the expiration of 30 months from the priority date.

Within **19 months** from the priority date, but only in respect of some designated Offices, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase until **30 months** from the priority date (in some Offices even later); otherwise, the applicant must, **within 20 months** from the priority date, perform the prescribed acts for entry into the national phase before those designated Offices.

In respect of other designated Offices, the time limit of **30 months** (or later) will apply even if no demand is filed within 19 months.

See the Annex to Form PCT/IB/301 and, for details about the applicable time limits; Office by Office, see the *PCT Applicant's Guide*, Volume II, National Chapters and the WIPO Internet site.

Name and mailing address of the International Searching Authority <div style="display: flex; align-items: center;"> <div>                         European Patent Office, P.B. 5818 Patentlaan 2                          NL-2280 HV Rijswijk                          Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,                          Fax: (+31-70) 340-3016                     </div> </div>	Authorized officer Laura Fernández Gómez
--	---

# PATENT COOPERATION TREATY

# PCT

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference  210511PCT	<b>FOR FURTHER ACTION</b> <div style="float: right; font-size: small;">see Form PCT/ISA/220 as well as, where applicable, item 5 below.</div>	
International application No.  PCT/US2005/000278	International filing date ( <i>day/month/year</i> )  06/01/2005	(Earliest) Priority Date ( <i>day/month/year</i> )  09/01/2004
Applicant  CHEVRON PHILLIPS CHEMICAL COMPANY, LP		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 7 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

**1. Basis of the report**

a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b. ☐ With regard to any nucleotide and/or amino acid sequence disclosed in the international application, see Box No. I.

2. ☐ Certain claims were found unsearchable (See Box II).

3. ☒ Unity of invention is lacking (see Box III).

**4. With regard to the title,**

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

**5. With regard to the abstract,**

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

**6. With regard to the drawings,**

a. the figure of the **drawings** to be published with the abstract is Figure No. \_\_\_\_\_

☐ as suggested by the applicant.

☐ as selected by this Authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

b. ☒ none of the figures is to be published with the abstract.

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US2005/000278

## Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☒ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☒ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-30, 57-60

a catalyst composition  
a method of making a catalyst composition  
a method of polymerizing olefins in the presence of the catalyst composition  
---

2. claims: 31-56

a polymer of ethylene characterized by parameters  
---

## INTERNATIONAL SEARCH REPORT

International Application No

PCT/US2005/000278

A. CLASSIFICATION OF SUBJECT MATTER  
IPC 7 C08F210/16 C08F4/642

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C08F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, COMPENDEX

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 0 643 084 A (BASF AKTIENGESELLSCHAFT; BASF AG) 15 March 1995 (1995-03-15)  claims; example 1	1, 2, 4-6, 10, 17-22, 28-30, 57-60
X	US 6 207 606 B1 (LUE CHING-TAI ET AL) 27 March 2001 (2001-03-27)  column 12, line 3 - line 15 examples table 3	1, 2, 4-6, 10, 17-22, 28-30, 57-60

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

\* Special categories of cited documents :

\*A\* document defining the general state of the art which is not considered to be of particular relevance

\*E\* earlier document but published on or after the international filing date

\*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

\*O\* document referring to an oral disclosure, use, exhibition or other means

\*P\* document published prior to the international filing date but later than the priority date claimed

\*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

\*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

\*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

\*&\* document member of the same patent family

Date of the actual completion of the international search

15 July 2005

Date of mailing of the international search report

02.08.2005

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
Fax: (+31-70) 340-3016

Authorized officer

Thomas, D

## INTERNATIONAL SEARCH REPORT

International Application No

PCT/US2005/000278

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2002/143123 A1 (DEKMEZIAN ARMENAG HAGOP ET AL) 3 October 2002 (2002-10-03)  paragraph '0006! paragraph '0010! paragraph '0015! paragraph '0058! claims	1,2,4-6, 10, 17-22, 28-30, 57-60
A	US 5 863 853 A (VAUGHAN ET AL) 26 January 1999 (1999-01-26) the whole document	1-30, 57-60
X	US 5 786 291 A (SPECIA ET AL) 28 July 1998 (1998-07-28) claims; examples	1,2,4-6, 57-60
X	EP 0 989 141 A (FINA RESEARCH S.A) 29 March 2000 (2000-03-29) example 7	31-56
X	MALMBERG ANNELI ET AL: "Long-chain branched polyethylene polymerized by metallocene catalysts Et' Ind!2ZrC12/MAO and Et' IndH4!2ZrC12/MAO" 1 December 1998 (1998-12-01), MACROMOLECULES; MACROMOLECULES DEC 1 1998 ACS, WASHINGTON, DC, USA, VOL. 31, NR. 24, PAGE(S) 8448 - 8454 , XP002336253 table 1	31-56
A	EP 0 743 327 A (UNION CARBIDE CHEMICALS & PLASTICS TECHNOLOGY CORPORATION) 20 November 1996 (1996-11-20) example 13; table 1	31-56

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US2005/000278

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
EP 0643084	A	15-03-1995	DE 4330667 A1	16-03-1995
			DE 59407901 D1	15-04-1999
			EP 0643084 A2	15-03-1995
			ES 2128475 T3	16-05-1999
			JP 3484461 B2	06-01-2004
			JP 7173209 A	11-07-1995
			US 6197900 B1	06-03-2001
US 6207606	B1	27-03-2001	AU 743509 B2	24-01-2002
			AU 3983599 A	06-12-1999
			BR 9910482 A	09-01-2001
			CA 2329438 A1	25-11-1999
			EP 1084153 A1	21-03-2001
			JP 2002515521 T	28-05-2002
			WO 9960032 A1	25-11-1999
			US 2002010077 A1	24-01-2002
US 2002143123	A1	03-10-2002	US 6734265 B1	11-05-2004
			WO 03033554 A1	24-04-2003
			US 2005065298 A1	24-03-2005
			US 2004220360 A1	04-11-2004
			EP 1448632 A1	25-08-2004
US 5863853	A	26-01-1999	US 6160066 A	12-12-2000
			US 5955625 A	21-09-1999
			US 6638887 B1	28-10-2003
			AT 207085 T	15-11-2001
			AU 686836 B2	12-02-1998
			AU 2870395 A	19-01-1996
			AU 2904195 A	19-01-1996
			CA 2193410 A1	04-01-1996
			CA 2193883 A1	04-01-1996
			CN 1165524 A ,C	19-11-1997
			DE 69522806 D1	25-10-2001
			DE 69522806 T2	16-05-2002
			DE 69523308 D1	22-11-2001
			DE 69523308 T2	11-07-2002
			EP 0766702 A1	09-04-1997
			EP 0766703 A1	09-04-1997
			ES 2165425 T3	16-03-2002
			ES 2164157 T3	16-02-2002
			JP 3014455 B2	28-02-2000
			JP 10502342 T	03-03-1998
			JP 10502395 T	03-03-1998
			RU 2167883 C2	27-05-2001
			TW 383312 B	01-03-2000
			WO 9600244 A1	04-01-1996
			WO 9600245 A1	04-01-1996
US 5786291	A	28-07-1998	AT 191488 T	15-04-2000
			AU 710785 B2	30-09-1999
			AU 2054897 A	10-09-1997
			CA 2241942 A1	28-08-1997
			CA 2245645 A1	28-08-1997
			CN 1211998 A	24-03-1999
			CN 1211994 A	24-03-1999
			DE 69701627 D1	11-05-2000
			DE 69701627 T2	26-10-2000

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US2005/000278

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 5786291	A	DE 69701676 D1	18-05-2000
		DE 69701676 T2	10-08-2000
		EP 0882078 A1	09-12-1998
		EP 0882073 A1	09-12-1998
		ES 2144849 T3	16-06-2000
		ES 2146088 T3	16-07-2000
		JP 2001500574 T	16-01-2001
		JP 2001508472 T	26-06-2001
		WO 9731040 A1	28-08-1997
		WO 9731035 A1	28-08-1997
EP 0989141	A	29-03-2000	
		EP 0989140 A1	29-03-2000
		EP 0989141 A1	29-03-2000
		AT 282648 T	15-12-2004
		AT 282647 T	15-12-2004
		AU 6329399 A	17-04-2000
		AU 6329499 A	17-04-2000
		DE 69922035 D1	23-12-2004
		DE 69922040 D1	23-12-2004
		WO 0018813 A1	06-04-2000
		WO 0018814 A1	06-04-2000
		EP 1124868 A1	22-08-2001
		EP 1117709 A1	25-07-2001
		ES 2232178 T3	16-05-2005
		ES 2232179 T3	16-05-2005
		JP 2000103813 A	11-04-2000
		JP 2000191726 A	11-07-2000
		US 2002099140 A1	25-07-2002
		US 2002065368 A1	30-05-2002
		US 6346575 B1	12-02-2002
EP 0743327	A	20-11-1996	
		AT 200497 T	15-04-2001
		AU 713324 B2	25-11-1999
		AU 5229596 A	28-11-1996
		BR 9602284 A	13-01-1998
		CA 2176767 A1	17-11-1996
		CN 1141306 A	29-01-1997
		CZ 9601424 A3	11-12-1996
		DE 69612424 D1	17-05-2001
		DE 69612424 T2	26-07-2001
		EP 0743327 A2	20-11-1996
		ES 2158246 T3	01-09-2001
		GR 3035742 T3	31-07-2001
		HU 9601322 A2	28-04-1997
		ID 16439 A	02-10-1997
		JP 3073929 B2	07-08-2000
		JP 8311260 A	26-11-1996
		KR 267629 B1	16-10-2000
		PL 314260 A1	25-11-1996
		PT 743327 T	28-09-2001
		RU 2162858 C2	10-02-2001
		SK 63796 A3	09-04-1997
		TR 970172 A1	21-03-1997
		TW 426690 B	21-03-2001
		US 5798427 A	25-08-1998
		ZA 9603917 A	25-11-1996



# PATENT COOPERATION TREATY

From the  
INTERNATIONAL SEARCHING AUTHORITY

# PCT

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY  
(PCT Rule 43bis.1)

To:

see form PCT/ISA/220

Date of mailing  
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference  
see form PCT/ISA/220

**FOR FURTHER ACTION**  
See paragraph 2 below

International application No.  
PCT/US2005/000278

International filing date (day/month/year)  
06.01.2005

Priority date (day/month/year)  
09.01.2004

International Patent Classification (IPC) or both national classification and IPC  
C08F210/16, C08F4/642

Applicant  
CHEVRON PHILLIPS CHEMICAL COMPANY, LP

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☒ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

*Resp to written OP.  
11/9/05*

Name and mailing address of the ISA:



European Patent Office  
D-80298 Munich  
Tel. +49 89 2399 - 0 Tx: 523656 epmu d  
Fax: +49 89 2399 - 4465

Authorized Officer

Thomas, D

Telephone No. +49 89 2399-7837



**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.  
PCT/US2005/000278

---

**Box No. 1 Basis of the opinion**

---

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
  - ☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
  - a. type of material:
    - ☐ a sequence listing
    - ☐ table(s) related to the sequence listing
  - b. format of material:
    - ☐ in written format
    - ☐ in computer readable form
  - c. time of filing/furnishing:
    - ☐ contained in the international application as filed.
    - ☐ filed together with the international application in computer readable form.
    - ☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.  
PCT/US2005/000278

---

**Box No. IV Lack of unity of invention**

---

1. ☒ In response to the invitation (Form PCT/ISA/206) to pay additional fees, the applicant has:
- ☒ paid additional fees.
  - ☐ paid additional fees under protest.
  - ☐ not paid additional fees.
2. ☐ This Authority found that the requirement of unity of invention is not complied with and chose not to invite the applicant to pay additional fees.
3. This Authority considers that the requirement of unity of invention in accordance with Rule 13.1, 13.2 and 13.3 is
- ☐ complied with
  - ☒ not complied with for the following reasons:  
**see separate sheet**
4. Consequently, this report has been established in respect of the following parts of the international application:
- ☒ all parts.
  - ☐ the parts relating to claims Nos.

---

**Box No. V Reasoned statement under Rule 43b/s.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

---

**1. Statement**

Novelty (N)	Yes: Claims	3,7-9, 11-16, 23-27
	No: Claims	1,2,4-6,10,17-22,28-30,31-60
Inventive step (IS)	Yes: Claims	3,7-9,11-16,23-27
	No: Claims	1,2,4-6,10,17-22, 28-30, 31-60
Industrial applicability (IA)	Yes: Claims	1-60
	No: Claims	

**2. Citations and explanations**

**see separate sheet**

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING  
AUTHORITY (SEPARATE SHEET)**

International application No.

PCT/US2005/000278

**Re Item IV.**

The separate inventions/groups of inventions are:

first invention : claims: 1-30, 57-60

a catalyst composition

a method of making a catalyst composition

a method of polymerizing olefines in the presence of

a catalyst composition

second invention: claims: 31-56

a polymer of ethylene characterized by parameters

They are not so linked as to form a single general inventive concept (Rule 13.1 PCT) for the reasons given on form PCT/ISA/206 attached to the search report.

**Re Item V**

Reference is made to the following documents:

- D1: EP-A-0 643 084 (BASF AKTIENGESELLSCHAFT; BASF AG) 15 March 1995 (1995-03-15)
- D2: US-B1-6 207 606 (LUE CHING-TAI ET AL) 27 March 2001 (2001-03-27)
- D3: US 2002/143123 A1 (DEKMEZIAN ARMENAG HAGOP ET AL) 3 October 2002 (2002-10-03)
- D4: US-A-5 863 853 (VAUGHAN ET AL) 26 January 1999 (1999-01-26)
- D5: US-A-5 786 291 (SPECIA ET AL) 28 July 1998 (1998-07-28)
- D6: EP-A-0 989 141 (FINA RESEARCH S.A) 29 March 2000 (2000-03-29)
- D7: MALMBERG ANNELI ET AL: "Long-chain branched polyethene polymerized by metallocene catalysts Et[Ind]2ZrCl2/MAO and Et[IndH4]2ZrCl2/MAO" 1 December 1998 (1998-12-01), MACROMOLECULES; MACROMOLECULES DEC 1 1998 ACS, WASHINGTON, DC, USA, VOL. 31, NR. 24, PAGE(S) 8448 - 8454, XP002336253
- D8: EP-A-0 743 327 (UNION CARBIDE CHEMICALS & PLASTICS TECHNOLOGY CORPORATION) 20 November 1996 (1996-11-20)

**1. First invention:**

The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claims 1,2,4-6,10, 17-22,28-30 is not new in the sense of Article 33(2) PCT.

1.1 D1 discloses in example 1 a catalyst composition falling within the scope of claim 1 ( in the first step a chemically modified silica gel is prepared. In the second step a mixture of 2 metallocenes activated with MAO is immobilized on the chemically treated support - the electron withdrawing anion is the chloride anion being abstracted from the neutral metallocene in the presence of MAO in order to form the catalytic active metallocene fragment) . In the third step triethylaluminum is contacted with the immobilized metallocenes.

1.2 D2 discloses in example 6-9 a catalyst composition comprising two different supported metallocenes. The description states in column 12, lines 3-15 that functionalised supports may be used to support the catalyst.

**Further deficiencies:**

1. The definition of the substituents X3, X4 and X7, X8 in claim 1 is not clear.

**2. Second invention:**

**2.1 Clarity:**

The following parameters are used to describe the polymer of claim 31:

melt index

density

flow activation energy

long chain branches

$M_w$ ,  $M_n$ ,  $M_z$

For the melt index and the density a reference to the ASTM method mentioned in the description should be included in the claim (Rule 6.2).

A method for determining the flow activation energy is missing. The passage on page 72 is not giving a clear and reliable method for the determination of the flow energy  $E_a$ .

The prior art usually describes the Long Chain branches not limited to a molecular weight range. A reasonable comparison with the prior art is therefore not possible at the present stage.

2.2 Some of the resins disclosed in the examples given in the present application do not fall under the scope of claim 31 (see Table 3 MI of run 1,4-6,8,11-14).

A technical teaching how to modify the catalyst composition in order to obtain polymers with the desired properties (eg. higher MI or run 3 ) is missing in the application.

The disclosure of the present invention is therefore regarded to be insufficient.

It is not clear to a person skilled in the art how to modify the given experiments in order to arrive at something falling within the scope of the claims.